

# Morse Controls Instruction Sheet

**NB Control**  
**P/N D303028 THROTTLE ONLY**  
**P/N D303029 CLUTCH & THROTTLE**  
**P/N D303102 CLUTCH ONLY**

## INTRODUCTION

NB type controls are heavy duty controls with a unique adjustable throttle brake. The adjustable brake prevents "throttle creep" associated with high loads on some throttles and governors.

The throttle lever (red knob) is activated by turning the knob in a clockwise direction and released by turning in a counter clockwise direction. (See Fig. 1).

The clutch lever (black knob) has positive detents in forward, neutral and reverse positions.

The control is designed for use with 33C Red Jacket, 33C Red Jacket Supreme or 43C Red Jacket cables. Mounting hardware includes parts for 33C and 43C type cables.

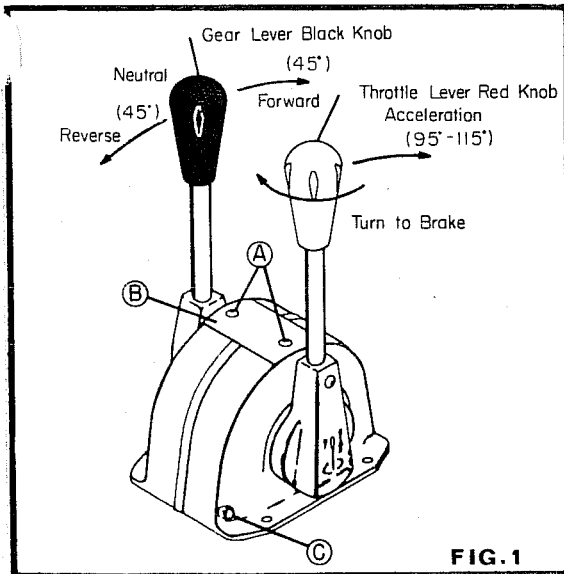
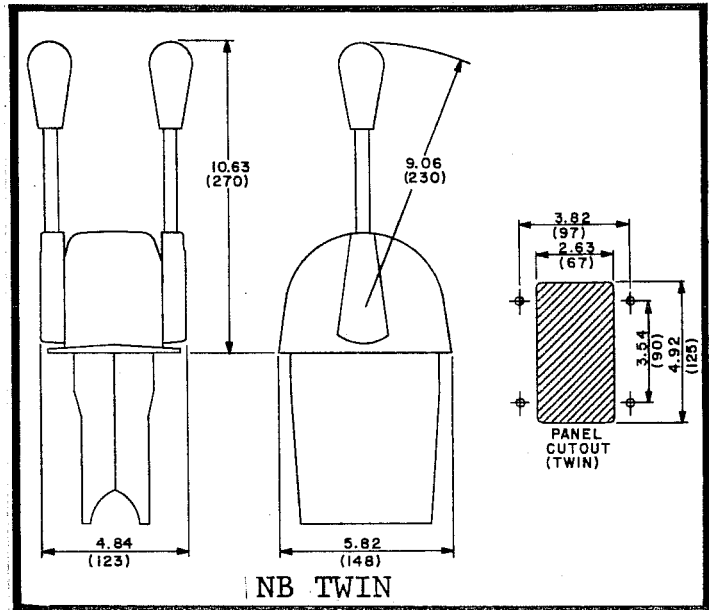


FIG. 1

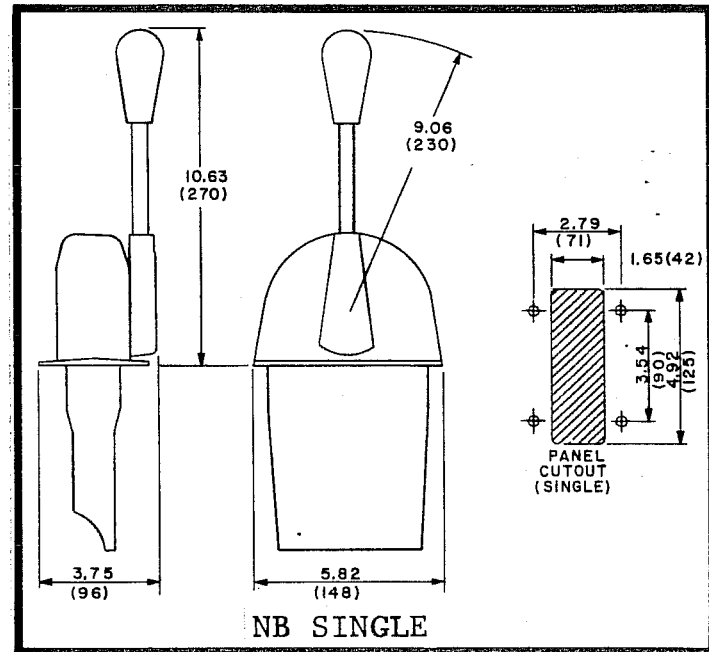
## 1.0 NB Twin Installation

1.1 After location of the control head is determined use the template provided and cut and drill the mounting holes required, (6mm or 1/4"). The mounting position should be selected so that the control levers can be freely operated and the cables can be bent at a radius more than 8" (200mm) when it is routed.

1.2 Insert cables into the control head mounting hole and route them to the engine.



NB TWIN

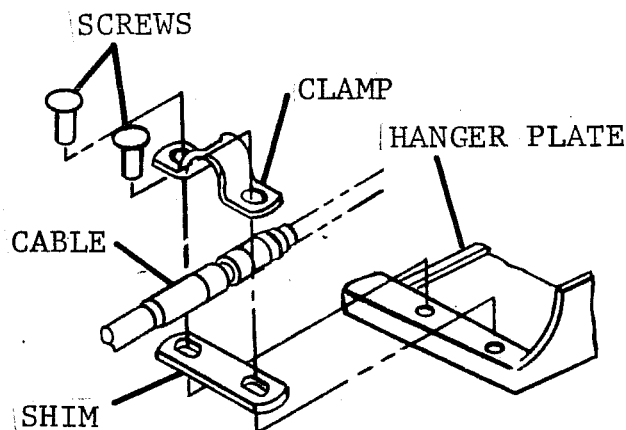
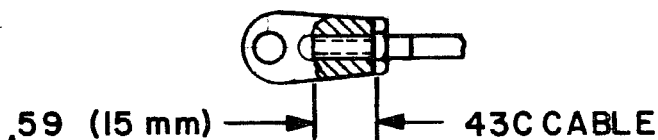
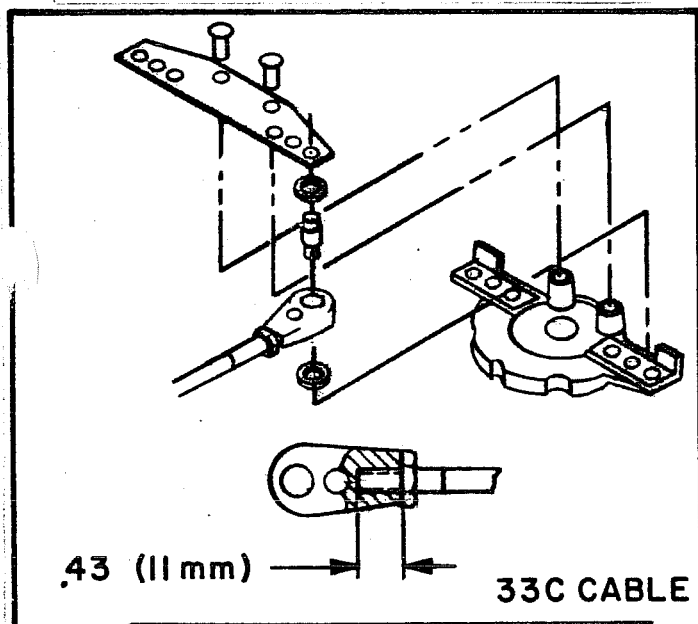


NB SINGLE

**CONTROLS**

## 2.0 Clutch Cable Installation Fig. II.

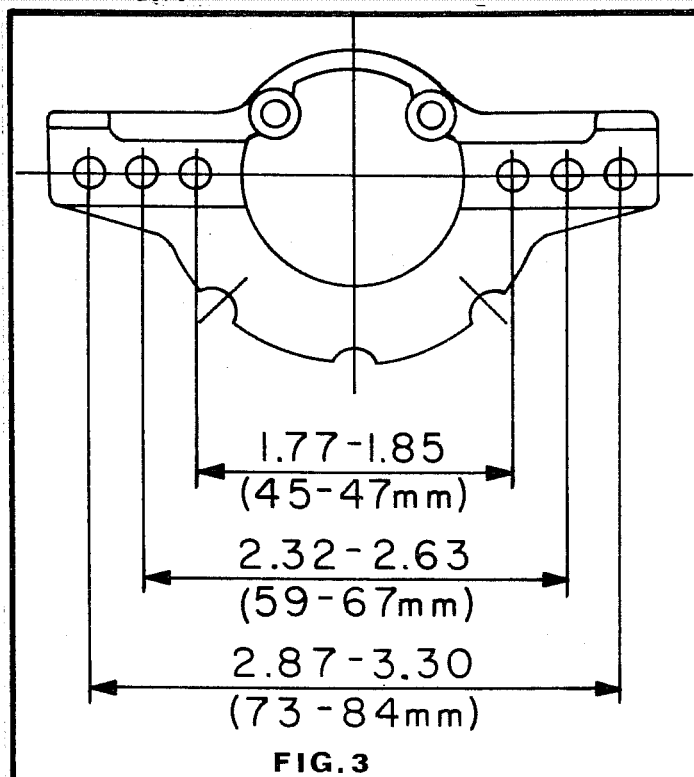
- 2.1 Determine the clutch lever position for right or left hand operation.
- 2.2 Remove two screws A and remove support plate from control. FIG. 1
- 2.3 Remove screws C (2 each) and separate control head. FIG. 1
- 2.4 Having determined the amount of travel required to operate the clutch lever select the proper mounting hole. FIG. 3
- 2.5 Screw on cable terminal to cable rod end and secure with cable jam nut.  
  
Note different positions for 30 & 40 series cables.
- 2.6 Grease pin and washer and assemble cable to operating lever.
- 2.7 Secure the cable to the hanger plate using shim, clamp and screws.



**FIG. 2**

## 3.0 Throttle Cable Installation

- 3.1 The throttle cable can be installed in the same manner as the clutch cable. Refer to section 2.0 steps 2.1 through 2.7.



## 4.0 Control Head Assembling

- 4.1 Put together both control head halves on the clutch and throttle sides and replace screws "C". Place the control head into the mounting hole. FIG. 1

### NOTE

Do not install screws "A" and cover plate "B". Do not secure the control to the mounting hole at this time.

## 5.0 Connecting Cable to the Engine

- 5.1 When connecting the shift cable to the transmission be sure the hand lever is in neutral.
- 5.2 When connecting the throttle cable, place hand lever in "idle" position.

### NOTE

Avoid bending the cable to a radius of less than 8" (200mm).

## 6.0 Adjustment and Inspection

- 6.1 By moving the control head clutch lever a few times check to see that both control lever and transmission lever are in the corresponding positions at neutral, forward and reverse. If not make adjustments by changing position of the cable in the operating lever (see FIG. 3), or by changing the position of the cable terminal in relation to the thread on the cable, or both.

6.2 Operate the control head throttle lever, make sure the throttle or governor fully opens and closes correctly. If not make adjustments by turning adjustment screw. See Fig. IV. After proper adjustment tighten jam nut.

6.3 Secure cover plate "B" to the control head using screws "A".

#### 7.0 Control Head Installation

7.1 Secure control to the mounting surface with M5 x 40 screws, plain washers (22mm dia.) and M5 nuts.

#### 8.0 NB Single Installation

8.1 The NB single can be installed in the same manner as the twin.

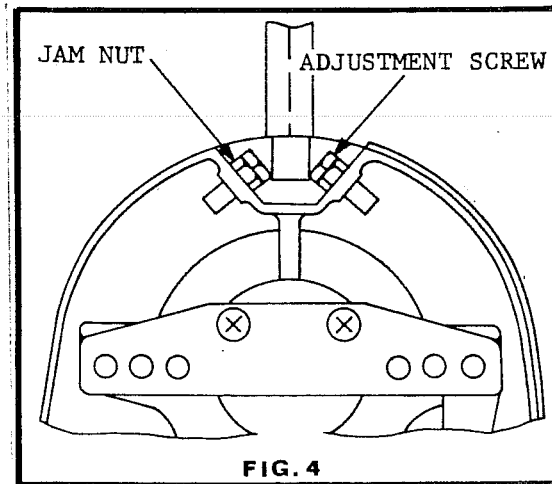
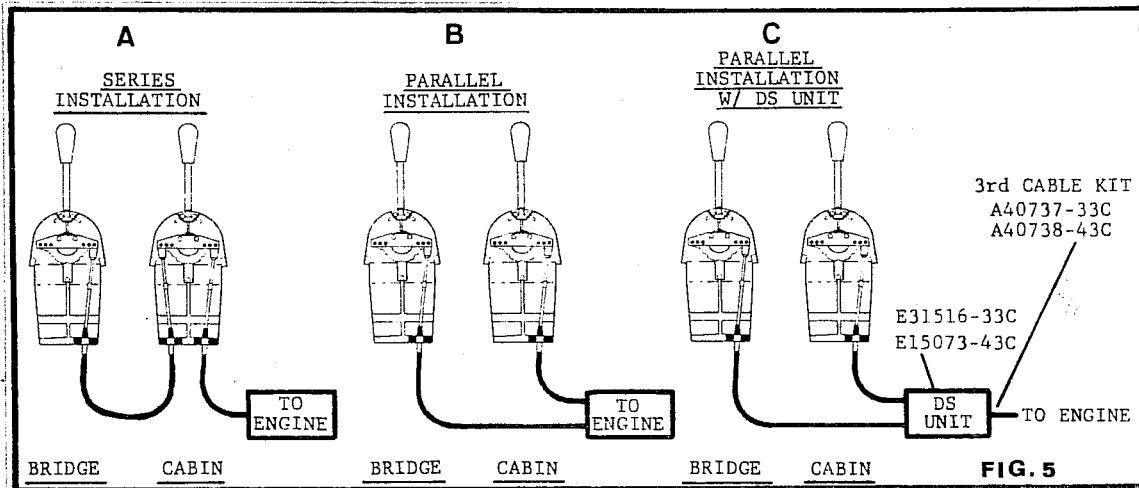


FIG. 4



3rd CABLE KIT  
A40737-33C  
A40738-43C

E31516-33C  
E15073-43C

FIG. 5

#### CAUTION

For dual station applications the throttle brake must be fully released at the station not in use. Failure to release the brake will cause the throttles to become inoperative.

#### 9.0 Dual Station Installation Fig. 5

9.1 The dual station system can be installed in 3 different ways as shown in Fig. 5.

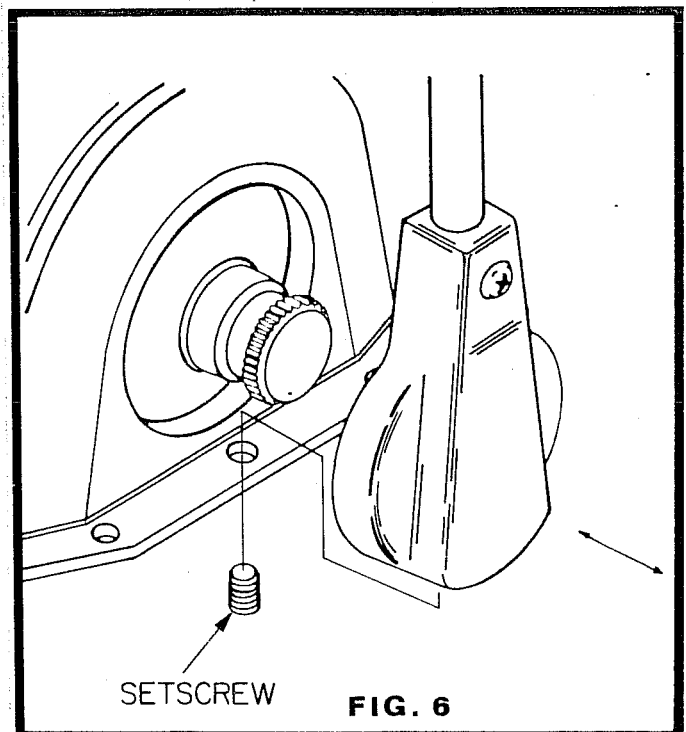
9.2 In installations "A" or "B" the detent must be removed from the bridge control head.

#### 10.0 How to Change the Lever Mounting Angle FIG. 6

10.1 Remove the control head from its mounting surface. Place the lever in a vertical position and loosen handle set screw with a 4mm hexagon wrench. Since the shaft is splined the lever angle can easily be changed. Be sure to tighten set screw securely when lever is replaced in desired position.

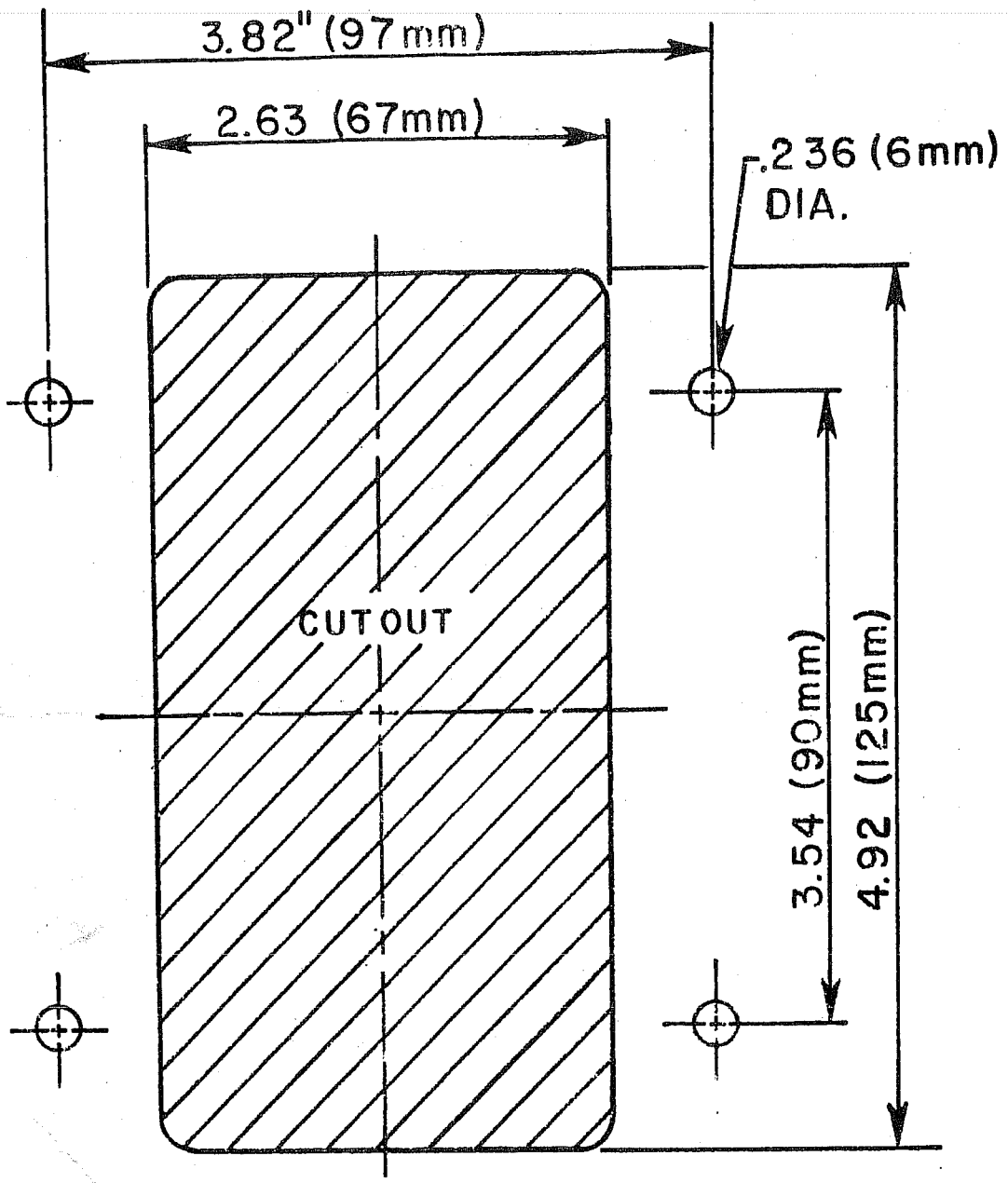
#### 11.0 Routine Care and Maintenance

To maintain a longer service life, especially in a salt-water environment, a coating of wax, rust inhibitor or grease will help keep control head in good condition. Routine lubrication of all moving parts also extends control life.



SETSCREW

FIG. 6



**NB TWIN**